

**WHAT IS CLAIMED IS:**

1. A surgical stapler comprising:
  - a first body portion having an anvil defining a fastener forming surface;
  - a second body portion configured to releasably mate with the first body portion,
- 5 the second body portion including a retention channel having a window defined at a proximal portion thereof;
  - a disposable loading unit removably supported in the second body portion, the disposable loading unit including:
    - a cartridge having a tissue contacting surface and defining a plurality of slots therein;
    - a plurality of surgical fasteners disposed in the slots of the cartridge;
    - a plurality of ejectors positioned adjacent the surgical fasteners; and
    - 10 an actuator configured to translate through the cartridge to sequentially interact with the ejectors, the actuator having an engagement structure;
  - 15 an elongated actuation member mounted for longitudinal movement within the cartridge through a plurality of positions, the plurality of positions including a first proximal position, a first distal position, and a second proximal position, the elongated actuation member having an engagement member releasably coupled to the engagement structure to enable pushing and pulling of the actuation member to effect movement of the actuation member in proximal and distal directions, respectively; and
  - 20 a locking mechanism including a biasing member and a locking member positionable between first and second positions, the biasing member biasing the locking member to its first position when the actuation member is in its first proximal position and the locking

member being biased to the second position for engaging the window of the actuation member when the actuation member is in its second proximal position.

2. The surgical stapler of claim 1, wherein the biasing member moves from a proximal portion of the retention channel to a distal portion of the retention channel as the 5 actuation member moves from its first proximal position to its first distal position.

3. The surgical stapler of claim 2, wherein the biasing member biases the locking member to its first position when the biasing member is in the proximal portion of the retention channel.

4. The surgical stapler of claim 1, wherein the retention channel includes 10 complementary engagement structures for releasably securing the disposable loading unit therein.

5. The surgical stapler of claim 1, further including an elongated knife slot extending through the tissue contacting surface.

6. The surgical stapler of claim 1, further including a protective housing 15 dimensioned to enclose a knife blade.

7. The surgical stapler of claim 6, wherein the protective housing is formed adjacent the proximal end of the disposable loading unit.

8. The surgical stapler of claim 1, wherein the disposable loading unit is composed of a liquid crystal polymer material.